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AUTOMATED DATA PROCESSING SYSTEM (ADPS): DOCUMENTATION STANDARD--ETC(U)
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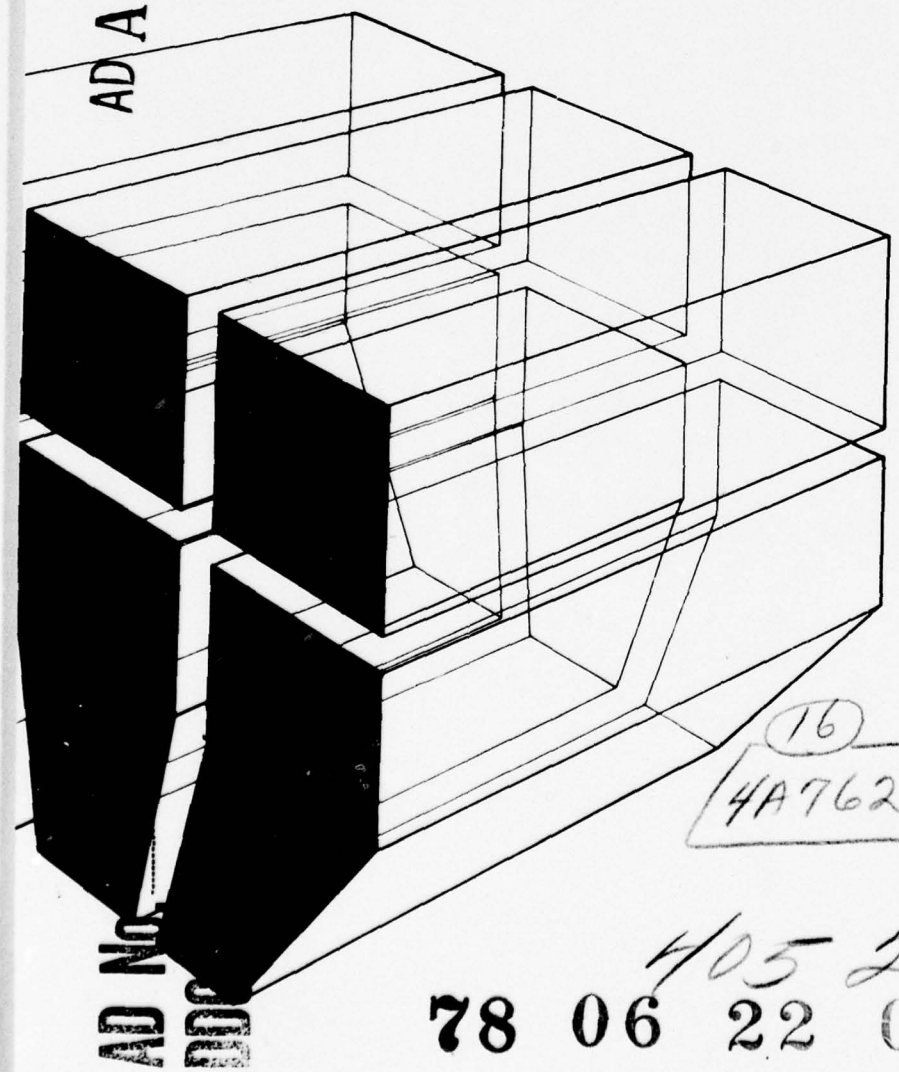

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This report presents documentation standards recommendations for the U.S. Army Corps of Engineers Computer Aided Engineering and Architectural Design System (CAEADS). These recommendations, which will be applicable throughout the system's life cycle, emphasize kinds of documents and their general content. Other factors such as style that contribute to document worthiness and acceptance were not considered.

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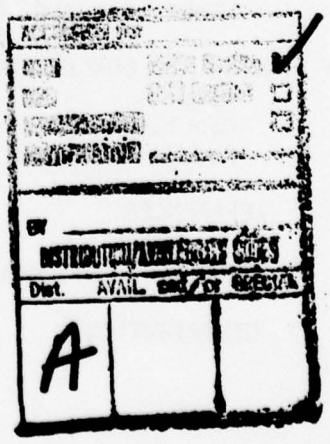
It is recommended that governmental publications DOD 4120.17M, AR 18-1, TB 18-122, and CSCM 18-1 (Training Package) be used as an initial foundation for approximately two dozen document types. The recommended standards apply both to CAEADS as a system and to each CAEADS subsystem. These standards govern both technical and management documents. Technical documents include both the more commonly cited documents of high utility and the less frequently mentioned (but vital) documents of limited use. Management documents encompass both resource management (time, funds, manpower, materiel) and general administration.

Nine significant documents were reviewed and evaluated for applicability: FIPS PUB 38, DOD 4120.17M, AR 18-1, AR 18-7, AR 18-12, CSCM 18-1, ETL 1110-1-45, USACERL Documentation Standards, and standards published by Prentice-Hall, Inc. It was found that: (1) FIPS PUB 38 was very similar to DOD 4120.17M; (2) AR 18-7 prescribes documentation file structure; (3) AR 18-12 is generally inapplicable (to CAEADS); (4) CSCM 18-1 has both strengths and weaknesses; (5) ETL 1110-1-45 was not originally intended for CAEADS-type computer programs; and (6) the USACERL and Prentice-Hall standards introduce documentation control through standardized forms.

FOREWORD

This investigation was performed for the Directorate of Military Construction, Office of the Chief of Engineers (OCE), under Project 4A762731AT41, "Design, Construction, and Operation and Maintenance Technology for Military Facilities"; Task T1, "Development of Automated Procedures for Military Construction"; Work Unit 020, "Computer Aided Engineering and Architectural Design System (CAEADS)." The applicable QCR is 3.03.004. The OCE Technical Monitor is Mr. V. J. Gottschalk, DAEN-MCE-D.

This investigation was performed by the CAEADS Team of the Facility Systems Division (FS), U.S. Army Construction Engineering Research Laboratory (CERL). Mr. E. A. Lotz is Chief of FS. COL J. E. Hays is Commander and Director of CERL, and Dr. L. R. Shaffer is Technical Director.



CONTENTS

AUTOMATED DATA PROCESSING SYSTEM (ADPS): DOCUMENTATION STANDARDS

1 INTRODUCTION

Purpose

The purpose of this report is to define acceptable documentation for the U.S. Army Corps of Engineers' Computer Aided Engineering and Architectural Design System (CAEADS) throughout its life cycle. Proposed standards shall apply both to CAEADS as a system and to each CAEADS subsystem.

Scope

Many other factors affect documentation worthiness, including: unity, coherence, style, attractiveness, uniformity, convenience, thoroughness, relevance, and content; however, these were not considered in this report. A broad approach to standards was undertaken to cover both technical and administrative documents, with emphasis placed on kinds of documents and their general content.

Background

Over the last quarter century, Automatic Data Processing System (ADPS) documentation standards have evolved to provide technical and administrative control of an ADPS life cycle, from concept through disposal. A rapidly growing technology and increasingly complex interaction of personnel and machines has required a corresponding growth in documentation. The involvement of increasingly larger sums of money also invites controls.

The need for coordinated standards is so universal that the government has become foremost in establishing them. Different levels of government have different responsibilities; normally, lower levels issue supplementary guidance to implement the guidance set by higher authority. Consequently, one cannot (and should not) always seek a final answer in a single set of issued standards.

Though governmental documentation "standards" exist, the documentation process is still not very standardized. Therefore, other potential sources of guidance--the standards which are developing in the commercial or private sector--should not be overlooked.

One drawback of published standards is that they represent thoughts which prevailed approximately a year before publication. As a result, standards may lack currency and consistency.

Approach

Significant government and commercial standards were reviewed for applicability. Government levels reviewed were Federal, Department of Defense, Department of the Army, and Corps of Engineers.

Technical documents considered were both the more commonly cited documents of high utility and the less frequently mentioned (but as vital) documents of limited use. Administrative (or management) documents encompassed both resource management (time, funds, manpower, materiel) and general administration.

The body of this report is divided into three parts: (1) classification or categorization of standards, (2) examination of current standards, and (3) forecasted trends of future standards.

Mode of Technology Transfer

This information will be disseminated in accordance with procedures set forth in AR 18-1, *Management Information Systems: Policies, Objectives, Procedures and Responsibilities* (Department of the Army, 22 March 1976).

2 STANDARDS CATEGORIES

The general rule of standards is that there should be a specific document for each specific audience. Following is a categorized list of standards, grouped by type of use.

Technical Documents

Frequent Use

- Systems Description Manual
- Functional User Manual
- Program Description (Maintenance) Manual
- Operators Manual (Run Book)

Infrequent or Single Use

- General Functional System Requirement
- Detailed Functional System Requirement
- System/Subsystem Specification
- Program Specification
- Data Base Specification
- Conversion Manual
- Training Manual
- System Integration Test Plan
- Prototype Evaluation Test Plan

Management Documents

Resource Management

Time

- Project Master Plan
- System Extension Plan

Funds

- Management Information System Economic Analysis
- Lease Versus Purchase Analysis
- ADP Contract Services Requirements Approval Request
- ADP Resource Estimating Procedures

Manpower

- Organization and Personnel Plan
- Training Plan/Manual/Package
- System Extension Plan
- ADP Resource Estimating Procedures

Materiel

Hardware Specification and Justification
ADP Resource Estimating Procedures

General Administration

General Functional System Requirement
System Integration Test Report
Prototype Evaluation Test Report
ADPE Readiness Review Report
System Extension Report
System Completion Report

3 CURRENT STANDARDS

General

Table 1 lists major types of documentation which apply both to the CAEADS system and to each of its subsystems. Some lesser, or implied, items have been omitted. For example, a lease versus purchase analysis (AR 18-1, Appendix L) ordinarily accompanies an Automatic Data Processing Equipment (ADPE) justification (AR 18-1, Appendix J) and is referenced by the justification documentation requirement. The ADP contract services requirements approval request (AR 18-1, Appendix N) is not cited. Emphasis has been placed on documentation which is submitted to higher authority; some guidance from higher authority is not cited, e.g., DFSR guidance by Office Chief of Staff, Army (OCSA), and PMP and ADPE specifications guidance by OCSA. Only Planning and Definition Phase and Development Phase documentation are of immediate interest.

Table 1 contrasts three standards which, together, are reasonably comprehensive. These and other standards of interest (see References), are discussed individually in this chapter. Table 1 is somewhat simplified in order to relate three sets of standards--Federal, Department of Defense (DOD), and Department of the Army (DA)--on a single page. The DFSR, AR 18-1, Appendix D, is shown as most nearly related to Figure 2-02, DOD 4120.17M, and Section 3.2, FIPS PUB 38. Actually, the relationship is more complex, and the DFSR of AR 18-1 corresponds to portions of Figures 2-02 through 2-05 of DOD 4120.17M and portions of Sections 3.2 through 3.5 of FIPS PUB 38. The Appendix to this report contains a more extensive relationship of these three publications, their similarities, and their dissimilarities. The detail of the Appendix is limited to at most five levels (four levels below the document level). The Appendix presents all Table 1 documents through the development phase, excepting the PET Plan, PET Report, SEP, Training Manual, and ADPE Readiness Review Report. (The ADPE Readiness Review Report does not apply to CAEADS.)

FIPS PUB 38

Federal Information Processing Standard (FIPS) Publication 38, *Guidelines for Documentation of Computer Programs and Automated Data Systems*, prepared by the National Bureau of Standards, is reasonably comprehensive. Many Federal organizations (including DOD and DA) participate in preparing Federal Standards. The underlying idea is to have a distinct document or manual for each type of audience or user affected by the data system; the documents have a basic functional segregation. Noticeably absent are conversion and training manuals. No distinction is made between systems integration and prototype testing.

Table 1

Automated Data Processing System (ADPS) Documentation Standards*

		AR 18-1	DOD 4120.17M	FIPS PUB 38
Planning and Definition Phase				
GFSR	**General Functional Sys Requirements	App. B	Fig. 2-01	Sec. 3.1
MISEA	# Mgmt Info System Economic Analysis	App. C	Fig. 2-01	Sec. 3.1
OPP	##Organization and Personnel Plan	App. G	Fig. 2-01	Sec. 3.1
DFSR	+ Detailed Functional Sys Requiremnt	App. D	Fig. 2-02	Sec. 3.2
PMP	Project Master Plan	App. M	Fig. 2-01	Sec. 3.1
Development Phase				
	Hardware Specification	Apps. J, K	--	--
	System/Subsystem Specification	Tabl. 2-1	Fig. 2-03	Sec. 3.3
	Program Specification	Tabl. 2-1	Fig. 2-04	Sec. 3.4
	Data Base Specification	Tabl. 2-1	Fig. 2-05	Sec. 3.5
	Systems Description Manual	App. H	--	--
	+ Functional User Manual	App. H	Fig. 2-06	Sec. 3.6
	+ Program Description (Maint) Manual	App. H	Fig. 2-08	Sec. 3.8
	+ Operators Manual (Run Book)	App. H	Fig. 2-07	Sec. 3.7
	Conversion Manual	--	--	--
	+ Training Manual	Ch. 8	--	--
SIT	System Integration Test Plan	--	Fig. 2-09	Sec. 3.9
PET	Prototype Evaluation Test Plan	--	--	--
SIT	System Integration Test Report	Par. 2-19	Fig. 2-10	Sec. 3.10
PET	Prototype Evaluation Test Report	Par. 2-20	--	--
	++ADPE Readiness Review Report	Par. 2-22	--	--
SEP	System Extension Plan	Tabl. 2-1	--	--
Installation, Operation, and Maintenance Phase				
ADPREP	ADP Resource Estimating Procedures	App. Q	--	--
	System Extension Report	Tabl. 2-1	--	--
	System Completion Report	Tabl. 2-1	--	--

* Boxed references are considered definitive.
** Submit update with GFSR.
# Submit update with DFSR, SIT Report (Class B Systems only), PET Report (Class A Systems only), and when MISEA estimates vary 25 percent from operational experience or major system changes occur.
Submit update with updated MISEA.
\+ Principal components of SDP, System Development Package.
++ Required only for major hardware acquisitions (Class A).

DOD 4120.17M

DOD 4120.17M, *Automated Data Systems: Documentation Standards Manual*, prepared by the Headquarters, U.S. Air Force (HQ USAF), is similar in outline to FIPS PUB 38 but is more specific. For all practical purposes, this document can be used in lieu of FIPS PUB 38. DA participates in preparing DOD standards; HQ USAF has the DOD standards mission.

AR 18-1

AR 18-1, *Management Information Systems: Policies, Objectives, Procedures, and Responsibilities*, prepared by OCSA, supplements DOD 4120.17M and FIPS PUB 38. Generally, FIPS must be incorporated into all new automated data processing systems designs, or major system change efforts, unless a request for specific waiver submitted through HQDA is approved. Federal standards on data elements and codes and on COBOL are waived in favor of DOD standards (AR 18-1, Par. 1-9). Federal and DOD standards adopted by DA are not reprinted in Army publications. The tone of AR 18-1, which can be used as a supplement, is different from that of higher level standards. For example, resources definition requirements are emphasized much more in AR 18-1 than in Federal and DOD standards. At the lower (Army) level, there is a great concern and a great need to be specific about resources such as time (PMP, SEP), funds (MISEA, lease versus purchase requirements, ADP contract services), manpower (OPP, training, SEP), and materiel (ADPE justification and specifications). There is also concern for being specific about purpose, justification, and impact (GFSR, MISEA, OPP).

The DFSR is nominally a planning and definition document but is seen to have aspects of specifications documents. For straightforward file maintenance information storage and retrieval programs, the DFSR essentially is the software specification. It is probably for that reason that the AR recognizes a need for software specifications downstream from the DFSR, but says little about it.

AR 18-7

AR 18-7, *Management Information Systems: Data Processing Installation Management, Procedures, and Standards*, by U.S. Army Computer Systems Support and Evaluation Agency (USACSSEA), supplements AR 18-1. It prescribes standards for flowcharts (Figs. 5-1 through 5-3, App. F), multiple card layouts (DA Form 3165, App. G), tape layouts (DA Form 3166, App. H), multipurpose code sheets (DA Form 3167, App. I), record layouts (DA Form 3493-R, App. K), Computer Program Folder (App. J), and Scientific Computer Program Folder (App. M). The program folders prescribe a procedure for filing documentation as it accumulates.

AR 18-12

AR 18-12, *Management Information Systems: Catalog of Standard Data Elements and Codes*, by OCSA, is supported by 11 volumes which usually pertain only to certain Army-wide file maintenance information storage and retrieval programs. It contains code tables for general administration, financial administration, mobilization and forces, personnel, logistics, procurement, security and intelligence, troop program sequence numbers, inventory of data systems, security measures applicable to RDTE (research, development, test, and evaluation), and automated supply system.

CSCM 18-1

CSCM 18-1, *Automated Data Processing System Development, Maintenance, and Documentation Standards and Procedures Manual, Vol. I, General*, by U.S. Army Computer Systems Command, is a useful supplement to the preceding documents. The treatment of flowcharting, decision tables, and technical documentation is comprehensive. The documentation requirements are good checklists and the training package standards can be considered definitive. The point of view is file maintenance information storage and retrieval. Weaknesses are in the areas of conversion and testing. Administrative documentation relating to resource management (time, funds, manpower, materiel) and its underlying philosophy are not prescribed, but are included as reference material. Strengths are in system/subsystem/program/data base specifications and system/user/maintenance/operators/training manuals.

ETL 1110-1-45

ETL 1110-1-45, *Engineering and Design: Engineering Computer Program Library, Standards and Documentation*, by the U.S. Army Corps of Engineers Directorate of Civil Works (DAEN-CW), is concerned with the minimal amount of residual documentation to be archived. The proponent, DAEN-CW, is concerned with a large body of predominantly engineering and scientific FORTRAN programs to be stored at a library maintained by the U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. Consequently, the outlook of ETL 1110-1-45 is vastly different from the administrative, technical, and file management-oriented Federal, DOD, and DA requirements. ETL 1110-1-45 asks for three things: (1) ENG Form 2883, Electronic Computer Program Abstract, (2) program description--both engineering description (engineering/mathematical theory) and computer functional description (user/operator manual), and (3) file documentation (maintenance manual).

USACERL

The USACERL *Documentation Manual*, prepared by McDonnell Automation for the U.S. Army Construction Engineering Research Laboratory, Champaign, IL, is oriented toward technical documentation and introduces the idea of controlling documentation through standardized forms. The main sections are: (1) system documentation (system and data definition, setup, and control), (2) program documentation (program definition, setup and processing, listings and displays), (3) input procedures, and (4) data communications. The manual is not comprehensive but does contain an extensive glossary of data communications terms. The manual does give insight to standards used by a major private software firm.

Commercial

The *Manual of Computer Documentation Standards with Forms*, by Kuehne, Lindberg, and Baron, is a commercial standard which uses standardized forms and checklists as much as possible. Comprehensiveness is sought and achieved to a great extent by the phases of feasibility study, system design, programming, testing, implementation, and operation. Cost, equipment, and project scheduling data are compiled, but cost benefits and organizational impact data are not. This document is worthwhile as an organizational document for someone beginning a new project.

4 TRENDS AND FUTURE STANDARDS

General

Documentation standards are evolving rapidly and continuously and are likely to do so for some time. The reasons lie in the phenomenal data processing growth of the past quarter century. Increasing complexity and financial outlays are accompanied by a need to exert some control over data processing, and by a need to manage effectively. Documentation is a principal means of control. Data processing is not sufficiently developed for a stable document control philosophy to emerge; however, existing standards are sufficiently developed to provide reliable guidance. A good example of change is AR 18-1. An earlier version (4 August 1971) lasted 4-1/2 years (until 22 March 1976). The current version is being revised, as discussed below.

Planned AR 18-1 Revisions

The current AR, 209 pages, is a mixture of high-level policy and minute procedural detail. Policy does change, but not rapidly, and the body of codified policy does not grow appreciably. On the other hand, procedural details have experienced a characteristically rapid mutation and growth. But an AR, having substantial Army-wide impact, is not easily or quickly modified when the need arises. The chosen solution to this problem has been to subdivide the AR. The basic AR (policies, responsibilities, and delegations of authority) will be a short, relatively invariant document. The detailed procedures will consist of a number of technical bulletins (currently 23) which can be changed relatively easily (see Table 2). The new draft of AR 18-1 was scheduled to be completely reviewed by 5 December 1977, and TB 18-122, Software Conversion Planning, which fills a long standing need, was being printed in December 1977. Some other TB's are currently in draft form, while others exist in name only. No TB's were published as of 1 December 1977.

Other Standards Revisions

Current Federal and Department of Defense standards are relatively recent and may not change substantially for awhile. An outline of some changes to DA standards was given in the preceding paragraph; other changes may be expected. Organizational, personnel, and technological changes result in the reevaluation of standards. For example, the U.S. Army Computer Systems Command (CSC) has a responsibility for defining standards for Army-wide (multicommand) computer applications. If CSC is given Army-wide responsibility for documentation standards, considerable changes may be expected. Corps-wide standards have not changed since 1971, and no major changes are known to be planned.

Table 2

Planned AR 18-1 Revisions

New AR 18-1 Content

Chapter 1 General
Chapter 2 Automation Policies
Chapter 3 Responsibilities
Chapter 4 System Classification and Delegation of Authority
Appendix A Terms and Abbreviations

Supporting Technical Bulletins

TB 18-100 Life Cycle Model
TB 18-101 Master Planning
TB 18-102 Requirement Documents
TB 18-103 Software Design and Development
TB 18-104 Testing of Systems
TB 18-105 (Undesignated)
TB 18-106 System Extension
TB 18-107 System Operation
TB 18-108 Maintenance and Modification
TB 18-109 Economic Analysis
TB 18-110 Configuration Management
TB 18-111 Technical Documentation
TB 18-112 Training Management
TB 18-113 (Undesignated)
TB 18-114 Performance Measurement and Analysis
TB 18-115 Army Information Processing Standards
TB 18-116 Resource Estimating Techniques
TB 18-117 Interface, Operability, and Integration
TB 18-118 Acquisition of Equipment, Software, and Services
TB 18-119 Telecommunication Support
TB 18-120 Battlefield Automation Support
TB 18-121 Scientific and Engineering Applications
TB 18-122 Software Conversion Planning
TB 18-123 Quality Assurance
TB 18-124 Army Automation Financial Management

5 RESULTS, CONCLUSIONS, AND RECOMMENDATIONS

Results

Nine significant government and commercial documentation standards have been reviewed, evaluated, and compared. Approximately two dozen major types of documents were seen to be required; these are classified in Chapter 2 and listed by major source in Table 1. Table 2 lists major anticipated revisions to documentation.

Conclusions

Existing Federal, DOD, and DA documentation standards are sufficiently developed to serve as reliable, comprehensive guidance.

No single source document is an adequate standard; however, as a foundation, one might use DOD 4120.17M, AR 18-1, TB 18-122, and CSCM 18-1 (Training Package).

Recommendations

DOD 4120.17M, AR 18-1, TB 18-122, and CSCM 18-1 (Training Package) should be used as initial guidelines for preparing Table 1 documentation for both the CAEADS system and individual CAEADS subsystems. References boxed in Table 1 are considered most definitive but not necessarily comprehensive; best results can be obtained by using more than one source standard.

REFERENCES

(Arranged in order of appearance in text)

Federal Government Standards

FIPS PUB 38, *Guidelines for Documentation of Computer Programs and Automated Data Systems* (U.S. Dept. of Commerce/National Bureau of Standards, 15 February 1976).

Department of Defense Standards

DOD 4120.17M, *Automated Data Systems: Documentation Standards Manual* (Hq U.S. Air Force, October 1975).

Department of the Army Standards

AR 18-1, *Management Information Systems: Policies, Objectives, Procedures, and Responsibilities;* Par 2-20c (System Development Package content); Ch. 8, "Training Management for Class A-1 Systems"; and App. H, "Data Processing Installation Systems Document Requirements." Also Apps. B, C, D, G, J, K, M, N (Department of the Army, 22 March 1976).

AR 18-7, *Management Information Systems: Data Processing Installation Management, Procedures, and Standards,* Ch. 5 "Documentation"; App. J, "Computer Program Folder"; and App. M, Scientific Computer Program Folder" (Department of the Army, 29 September 1966).

AR 18-12, *Management Information Systems: Catalog of Standard Data Elements and Codes* (Department of the Army, 29 March 1974).

CSCM 18-1, *Automated Data Processing System Development, Maintenance, and Documentation Standards and Procedures Manual, Vol I, General*, Ch. 6, "Documentation Standards " (Computer Systems Command, Department of the Army, 15 March 1974).

Corps of Engineers Standards

ETL 1110-1-45, *Engineering and Design: Engineering Computer Program Library, Standards and Documentation* (Office of the Chief of Engineers, Department of the Army, 9 February 1971).

USACERL, *Documentation Manual* (McDonnell Automation [MCAUTO] for the U.S. Army Construction Engineering Research Laboratory, 5 December 1975).

Commercial Standards

Kuehne, R. S., H. W. Lindberg, and W. F. Baron, *Manual of Computer Documentation Standards with Forms* (Prentice-Hall, Inc., 1972).

APPENDIX:

DOCUMENTS AND CONTENTS BY SOURCE

CONTENTS

NOTATION

CARD COLS	HEADINGS	SOURCE DOCUMENTS
48	FED	FIPS PUB 38, GUIDELINES FOR DOCUMENTATION OF COMPUTER PROGRAMS AND AUTOMATED DATA SYSTEMS (U.S. DEPT. OF COMMERCE/NATIONAL BUREAU OF STANDARDS, 1976).
50	DOD	DOD 4120.17 M, AUTOMATED DATA SYSTEMS: DOCUMENTATION STANDARDS MANUAL (HQ U.S. AIR FORCE, 1975).
52	DA1	AR 18-1, MANAGEMENT INFORMATION SYSTEMS: POLICIES, OBJECTIVES, PROCEDURES, AND RESPONSIBILITIES; PAR. 2-20C (SYSTEM DEVELOPMENT PACKAGE CONTENT); CH. 8, "TRAINING MANAGEMENT FOR CLASS A-1 SYSTEMS"; AND APP. H, "DATA PROCESSING INSTALLATION SYSTEMS DOCUMENTATION REQUIREMENTS". (ALSO, APPS. B,C,D, G,J,K,M,Q.)
58	CPR	CONVERSION INSTRUCTIONS FOR THE AUTOMATED MILITARY CONSTRUCTION PROGRESS REPORTING SYSTEM (AMPRS), TECHNICAL REPORT P-51 (U.S. ARMY CONSTRUCTION ENGINEERING RESEARCH LABORATORY, 1975).
60	F&A	CORPS OF ENGINEERS MANAGEMENT INFORMATION SYSTEM: COEMIS F&A SUBSYSTEM CONVERSION MANUAL (OFFICE, CHIEF OF ENGINEERS, 1972).

	FED	DOD	DA1	CPR	F&A
1. FUNCTIONAL REQUIREMENTS DOCUMENT	X	X	X		
1. GENERAL INFORMATION	X	X	X		
1. SYSTEM TITLE			X		
2. SYSTEM CLASSIFICATION			X		
3. PURPOSE OF FUNCTIONAL DESCRIPTION	X	X	X		
1. SYSTEM REQUIREMENTS		X	X		
2. PERFORMANCE REQUIREMENTS		X			
3. SYSTEM TESTS		X			
4. ASSUMPTIONS			X		
5. CONSTRAINTS			X		
6. SECURITY REQUIREMENT			X		
7. PROJECT CONTROL			X		
8. AUTOMATION LEVEL/CONCEPT			X		
9. SYSTEM ABSTRACTS			X		
1. SYSTEMS TITLE			X		
2. SYSTEMS STATUS			X		
3. PROPONENT AGENCY			X		
4. ASSIGNED RESPONSIBLE AGENCY			X		
5. AUTHORIZATION DIRECTIVE			X		
6. GENERAL DESCRIPTION OF SYSTEM			X		
7. SYSTEMS OBJECTIVES			X		
8. ADPE CONFIGURATION			X		
9. DATA PROCESSING INSTALLATIONS			X		
10. SYSTEMS INTERFACE			X		
11. DATA COMMUNICATIONS			X		
10. ENVIRONMENT-ORGANIZATIONAL	X		X		
11. PROJECT REFERENCES	X	X	X		
1. PROJECT REQUEST	X	X			
2. PREVIOUS TECHNICAL DOCUMENTATION	X	X			
3. DOCUMENTATION OF RELATED PROJECT	X	X			
4. OTHER REFERENCE DOCUMENTS	X	X	X		
5. FORMAL AGREEMENTS		X			
6. REFERENCE DOCUMENTATION		X			
1. DOCUMENTATION STDS AND SPECS		X			
2. PROGRAMMING CONVENTIONS		X			
3. FEDERAL STANDARDS, DOD STDS		X			
4. HARDWARE MANUALS		X			
12. TERMS AND ABBREVIATIONS APPENDIX		X	X		
2. SYSTEM SUMMARY	X	X	X		
1. BACKGROUND	X	X	X		
2. OBJECTIVES	X	X	X		
3. EXISTING METHODS AND PROCEDURES	X	X	X		
1. ORGANIZTN/PERS RESPONSIBILITIES	X	X	X		
2. EQUIPMENT AVAILABLE AND REQUIRED	X	X	X		
3. VOL/FREQUENCY OF INPUT/OUTPUT	X	X	X		
4. DEFICIENCIES AND LIMITATIONS	X	X			
5. PERTINENT COST CONSIDERATIONS	X				
6. DATA FLOW	X	X	X		

	FED	DOD	DA1	CPR	F&A
4. PROPOSED METHODS AND PROCEDURES	X	X	X		
1. ORGANIZTN/PERS RESPONSIBILITIES	X		X		
2. EQUIPMENT AVAILABLE AND REQUIRED	X		X		
3. VOL/FREQUENCY OF INPUT/OUTPUT	X		X		
4. DEFICIENCIES AND LIMITATIONS	X				
5. PERTINENT COST CONSIDERATIONS	X				
6. DATA FLOW	X	X	X		
5. SUMMARY OF IMPROVEMENTS	X	X			
1. NEW CAPABILITIES	X	X			
2. UPGRADED EXISTING CAPABILITIES	X	X			
3. ELIM OF EXISTING DEFICIENCIES	X				
4. IMPROVED TIMELINESS	X	X			
5. ELIMINATION OR REDUCTION OF EXISTING CAPABILITIES	X	X			
6. SUMMARY OF IMPACTS	X	X	X		
1. EQUIPMENT IMPACTS (ADDNS, MODS)	X	X	X		
2. SOFTWARE IMPACTS (ADDNS, MODS)	X	X			
3. ORGANIZATIONAL IMPACTS	X	X	X		
1. FUNCTIONAL REORGANIZATION	X	X			
2. INCREASE/DECREASE STAFF LEVEL	X	X	X		
(EST MIL/CIV MANPWR SPACE REQS)			X		
1. CURRENT ORGANIZATION-AVAILABLE MANPOWER			X		
1. DPI OPERATOR/MAINT PERS			X		
2. DPI SUPPORT PERSONNEL			X		
3. OTHER SUPPORT PERSONNEL			X		
4. TOTAL AVAILABLE MANPOWER SPACES			X		
2. ESTIMATED MANPOWER REQS			X		
1. DPI OPERATOR/MAINT PERS			X		
2. DPI SUPPORT PERSONNEL			X		
3. OTHER SUPPORT PERSONNEL			X		
4. TOTAL MANPOWER SPACE REQ			X		
3. PLANNED ORGANIZATIONAL CHANGES			X		
4. RECAPITULATION			X		
1. AVAILABLE MANPOWER			X		
2. ESTIMATED REQUIREMENTS			X		
3. ORGANIZATIONAL CHANGES			X		
4. IMPACT OF CHANGES			X		
3. UP/DOWNGRADE OF STAFF SKILLS	X	X	X		
(PERS AND MOS DISTRIB BY: CATEGORY, MOS/CIV CODE, GRADE, BRANCH, CURR AUTH, EST REQ, NET CHANGE)			X		
1. DPI OPERATOR/MAINT PERS			X		
2. DPI SUPPORT PERSONNEL			X		
3. OTHER SUPPORT PERSONNEL			X		
4. PLANNED ORGANIZATIONAL CHANGES			X		

	FED	DOD	DA1	CPR	F&A
5. RECAPITULATION			X		
4. OPERATIONAL IMPACTS	X	X			
1. STAFF/OPERATIONAL PROCEDURES	X	X			
2. RELATIONSHIPS BETWEEN THE OPERATING CENTER AND THE USERS	X	X			
3. OPERATING CENTER PROCEDURES	X	X			
4. DATA (SOURCES, VOLUME, MEDIUM, TIMELINESS)	X	X			
5. DATA RETENTION/RETRIEVAL PROCS	X	X			
6. REPORTING METHODS	X	X			
7. SYSTEM FAILURE CONSEQUENCES AND RECOVERY PROCEDURES	X	X			
8. DATA INPUT PROCEDURES	X	X			
9. COMPUTER PROCESSING TIME REQS	X	X			
5. DEVELOPMENTAL IMPACTS	X	X			
1. USER SUPPORT OF SOFTWARE DEVEL	X	X			
2. DATA BASE DEVEL RESOURCES	X	X			
3. COMPUTER PROCESSING RESOURCES TO DEVELOP AND TEST SOFTWARE	X	X	X		
7. EXPECTED LIMITATIONS		X	X		
1. LIMITATIONS ON DESIRED CAPABILITIES		X			
2. EXPECTED TYPES OF ERRORS		X			
8. OTHER CONSIDERATIONS	X		X		
1. COST	X				
2. INTERFACES	X		X		
3. TELECOMMUNICATION	X				
9. ALTERNATIVE PROPOSALS	X		X		
3. DETAILED CHARACTERISTICS	X	X	X		
1. SPECIFIC PERFORMANCE REQS	X	X	X		
1. ACCURACY AND VALIDITY	X	X			
1. MATHEMATICAL	X	X			
2. LOGICAL	X	X			
3. LEGAL	X	X			
4. TRANSMISSION	X	X			
2. TIMING	X	X			
1. THROUGHPUT TIME	X	X			
2. RESPONSE TIME TO QUERIES AND TO UPDATES OF DATA FILES	X	X			
3. MAJOR FUNCTION RESPONSE TIME	X	X			
4. FUNCTIONS SEQUENTIAL RELATIONS		X			
5. INPUT/OPERATIONS PRIORITIES		X			
6. TIMING REQS FOR THE RANGE OF TRAFFIC LOAD		X			
7. DATA TRANSFER/TRANSMIT TIME	X	X			
8. INTERLEAVING REQUIREMENTS		X			
3. FLEXIBILITY	X		X		
1. PRIORITIES IMPOSED BY TYPES					

	FED	DOD	DA1	CPR	F&A
OF INPUTS AND CHANGES IN MODES OF OPERATION	X	X	X		
2. OPERATING ENVIRONMENT	X	X	X		
3. INTERFACES WITH OTHER SOFTWARE	X	X	X		
4. ACCURACY/VALIDATION TIMING	X	X			
5. PLANNED CHANGES, IMPROVEMENTS	X	X			
2. SYSTEM FUNCTIONS	X	X			
1. ADS FUNCTIONS DESCRIPTION	X	X			
2. FUNCTIONS SATISFACTION OF PERFORMANCE REQUIREMENTS	X	X			
3. INPUTS/OUTPUTS	X	X			
1. EXAMPLES AND EXPLANATIONS OF I/O	X	X			
2. SPECS OF THE MEDIUM (DISK, CARDS MAGNETIC TAPE), FORMAT, RANGE OF VALUES, AND ACCURACY	X	X			
3. EXAMPLES OF HARD COPY, GRAPHIC, OR DISPLAY REPORTS	X	X			
4. DATA CHARACTERISTICS	X	X			
1. DESCRIPTION OF INDIVIDUAL AND COMPOSITE DATA ELEMENTS BY NAME, CODES, DICTIONARIES, TABLES, AND REFERENCE FILES	X	X			
2. ESTIMATE OF TOTAL DATA STORAGE REQS, EXPECTED GROWTH	X	X			
5. FAILURE CONTINGENCIES	X	X	X		
1. BACK-UP	X	X			
2. FALLBACK	X	X			
3. RECOVERY AND RESTART	X	X			
4. OPERATING ENVIRONMENT	X	X	X		
1. EQUIPMENT	X	X			
1. PROCESSORS, INTERNAL STORAGE	X	X			
2. STORAGE MEDIA	X	X			
3. OUTPUT DEVICES	X	X			
4. INPUT DEVICES	X	X			
5. DATA TRANSMISSION	X	X			
2. SUPPORT SOFTWARE	X	X			
3. INTERFACES	X	X	X		
1. EXTERNAL INTERFACE			X		
2. PURPOSE/REQUIREMENT			X		
3. EXCHANGE VEHICLE			X		
4. ECHELON INTERFACE AND FEEDBACK			X		
5. CONSTRAINTS			X		
6. INTERFACE EVENT			X		
7. FREQUENCY OF INTERFACE			X		
8. SECURITY CLASSIFICATION			X		
9. REMARKS			X		
4. SECURITY AND PRIVACY	X	X			
5. CONTROLS	X				

	FED	DOD	DA1	CPR	F&A
5. SYSTEM DEVELOPMENT PLAN	X	X	X		
(PROJECT MASTER PLAN)			X		
1. TITLE			X		
1. REFERENCES	X	X	X		
2. ORGANIZATION			X		
2. PROJECT DESCRIPTION			X		
1. BACKGROUND			X		
2. GENERAL DESCRIPTION			X		
3. OBJECTIVES			X		
4. CONSTRAINTS			X		
5. PARTICIPATIONG ORGANIZATIONS	X	X	X		
6. ASSUMPTIONS			X		
3. OBJECTIVE			X		
4. EXECUTION			X		
1. CONCEPT OF OPERATION	X	X	X		
2. SPECIFIC TASKS			X		
3. COORDINATING INSTRUCTIONS			X		
5. RESOURCE SUPPORT			X		
6. POINTS OF CONTACT			X		
7. ANNEXES			X		
1. SUMMARY TECH APPROACH AND RISKS			X		
2. SUMMARY WORK ORGANIZATION CHART			X		
3. SUMMARY SCHEDULE CHART	X	X	X		
4. SUMMARY MANPOWER LOADING CHART			X		
5. SUMMARY FINANCIAL SUPPORT CHART			X		
6. COST FACTORS, ECONOMIC ANALYSIS		X	X		
1. PROBLEM/OPPORTUNITY ID			X		
2. RELEVANT ENVIRONMENT			X		
3. OBJECTIVES			X		
4. ASSUMPTIONS/CONSTRAINTS			X		
1. REQUIREMENTS OF HIGHER COMMAND			X		
2. SECURITY		X			
3. TELECOMMUNICATIONS		X			
4. INTERFACE WITH OTHER SYSTEMS		X			
5. ALTERNATIVES		X			
5. ALTERNATIVES			X		
6. COSTS			X		
1. PERSONNEL		X			
2. HARDWARE		X			
3. SOFTWARE		X			
4. FACILITIES		X			
5. COMMUNICATIONS		X			
7. BENEFITS			X		
8. COMPARE ALTERNATIVES			X		
9. SENSITIVITY TEST			X		
10. ANALYSIS PRESENTATION			X		
7. COMMUNICATION REQS			X		
8. TRAINING REQS			X		

	FED	DOD	DA1	CPR	F&A
2. DATA REQUIREMENTS DOCUMENT	X	X	X		
1. GENERAL INFORMATION	X	X	X		
1. PURPOSE OF DATA REQS DOCUMENT	X	X			
2. ENVIRONMENT-ORGANIZATIONAL	X				
3. PROJECT REFERENCES	X	X	X		
1. PROJECT REQUEST (AUTHORIZATION)	X	X			
2. PREVIOUS DOCUMENTS	X	X			
3. DOCUMENTATION OF RELATED PROJECT	X	X			
4. FIPS PUBS, OTHER REF DOCS	X				
5. FUNCTIONAL DESCRIPTION		X			
4. TERMS AND ABBREVIATIONS		X	X		
5. MODIFICATION OF DATA REQUIREMENTS	X	X			
2. DATA DESCRIPTION	X	X	X		
1. STATIC SYSTEM DATA	X	X	X		
2. DYNAMIC INPUT DATA	X	X	X		
3. DYNAMIC OUTPUT DATA	X	X	X		
4. INTERNALLY GENERATED DATA	X	X	X		
5. SYSTEM DATA CONSTRAINTS	X	X	X		
3. USER SUPPORT FOR DATA COLLECTION	X	X			
1. REQUIREMENTS AND SCOPE	X	X			
1. SOURCE OF INPUT	X	X			
2. INPUT MEDIUM AND DEVICE	X	X			
3. RECIPIENT (USERS)	X	X			
1. DATA ELEMENTS INPUT TO THE SYSTEM, PROCESSED BY IT, AND OUTPUT FROM IT ESSENTIALLY UNCHANGED		X			
2. DATA ELEMENTS GENERATED BY A PROGRAM AND OUTPUT TO USER		X			
3. DATA ELEMENTS THAT ARE INPUTS TO THE SYSTEM BUT THAT ARE NOT OUTPUT BY IT.		X			
4. CRITICAL VALUE	X	X			
5. SCALES OF MEASUREMENT	X	X			
6. CONVERSION FACTORS	X	X			
7. OUTPUT MEDIUM AND DEVICE	X	X			
8. EXPANSION FACTORS		X			
9. FREQUENCY OF UPDATE/PROCESSING	X	X			
2. RECOMMENDED SOURCE OF INPUT DATA	X	X			
3. DATA COLLECTION/TRANSFER PROCS	X	X			
1. INPUT FORMATS	X	X			
2. OUTPUT FORMATS	X	X			
4. DATA BASE IMPACTS	X	X			
5. TELECOMMUNICATION REQUIREMENTS			X		
1. TYPE SERVICE			X		
2. TERMINALS LOCATIONS			X		
3. RESPONSE TIME			X		

	FED	DOD	DA1	CPR	F&A
4. TRAFFIC LOAD			X		
5. HEAVY TRAFFIC PERIODS			X		
6. TRAFFIC TYPE, PRECEDENCE			X		
7. TYPE CIRCUIT DESIRED			X		
8. METHOD OF OPERATION			X		
9. LOCAL AVAILABLE CIRCUITS			X		
10. TRANSMISSION EQUIP REQUIREMENTS			X		
11. SYSTEM GROWTH REQUIREMENTS			X		
12. SECURITY REQUIREMENTS			X		
13. ALTERNATE POSSIBLE ROUTES			X		
14. LEASE/PURCHASE COSTS			X		

	FED	DOD	DA1	CPR	F&A
3. SYSTEM/SUBSYSTEM SPECIFICATION	X	X	X		
1. GENERAL INFORMATION	X	X			
1. PURPOSE		X			
1. DETAILED DEFINITION OF SYSTEM/ SUBSYSTEM FUNCTIONS		X			
2. DETAILS OF ON-GOING ANALYSIS BETWEEN USER'S OPERATIONAL PERSONNEL AND DEVELOPMENT PERSONNEL		X			
3. DETAILED DEFINITION OF INTERFACES WITH OTHER SYSTEMS/SUBSYSTEMS AND THE FACILITIES TO BE UTILIZED FOR ACCOMPLISHING THE INTERFACES		X			
2. ENVIRONMENT	X				
1. PROJECT SPONSOR	X				
2. DEVELOPER	X				
3. USER	X				
4. COMPUTER CENTER/NETWORK	X				
3. PROJECT REFERENCES	X	X			
1. PROJECT REQUEST (AUTHORIZATIONS)	X				
2. PREVIOUS DOCUMENTS	X	X			
3. DOCUMENTATION OF RELATED PROJECT	X	X			
4. FIPS PUBS, OTHER REF DOCS	X	X			
5. FUNCTIONAL DESCRIPTON		X			
6. RELATED SYSTEM/SUBSYSTEM SPECS		X			
4. TERMS AND ABBREVIATIONS		X	X		
2. SUMMARY OF REQUIREMENTS	X	X	X		
1. SYSTEM/SUBSYSTEM DESCRIPTION	X	X			
2. SYSTEM/SUBSYSTEM FUNCTIONS	X	X	X		
3. PERFORMANCE	X				
1. ACCURACY AND VALIDITY	X	X			
1. MATHEMATICAL	X	X			
2. LOGICAL	X	X			
3. LEGAL	X	X			
4. TRANSMISSION	X	X			
2. TIMING	X	X			
1. THROUGHPUT TIME	X	X			
2. RESPONSE TIME TO QUERIES AND TO UPDATES OF DATA FILES	X	X			
3. MAJOR FUNCTION RESPONSE TIME	X	X			
4. FUNCTIONS SEQUENTIAL RELATIONS		X			
5. INPUT/OPERATIONS PRIORITIES		X			
6. TIMING REQS FOR THE RANGE OF TRAFFIC LOAD		X			
7. DATA TRANSFER/TRANSMIT TIME	X	X			
8. INTERLEAVING REQUIREMENTS		X			
3. FLEXIBILITY	X	X			

	FED	DOD	DA1	CPR	F&A
1. PRIORITIES IMPOSED BY TYPES OF INPUTS AND CHANGES IN MODES OF OPERATION	X	X			
2. OPERATING ENVIRONMENT	X	X			
3. INTERFACES WITH OTHER SOFTWARE	X	X			
4. ACCURACY/VALIDATION TIMING	X	X			
5. PLANNED CHANGED, IMPROVEMENTS	X	X			
3. OPERATING ENVIRONMENT	X	X			
1. EQUIPMENT	X	X			
1. PROCESSOR, INTERNAL STORAGE	X	X			
2. STORAGE, MEDIA, FORM, DEVICES	X	X			
3. INPUT/OUTPUT DEVICES, CAPACITIES	X	X			
4. DATA TRANSMISSION DEVICES	X	X			
2. SUPPORT SOFTWARE	X	X			
3. INTERFACES	X	X	X		
1. TYPE OF INTERFACE		X	X		
2. OPERATIONAL IMPLICATIONS		X	X		
3. DATA TRANSFER REQUIREMENTS		X	X		
4. CURRENT FORMATS, TRANSFERRED DATA		X			
5. INTERFACE PROCEDURES		X	X		
6. INTERFACE EQUIPMENT		X	X		
7. EXCHANGE VEHICLE NAME			X		
8. PREPARATION DATE			X		
9. ECHELON AND FEEDBACK			X		
10. INTERFACE FREQUENCY			X		
11. SECURITY CLASSIFICATION			X		
12. REMARKS			X		
4. SECURITY AND PRIVACY	X	X			
5. CONTROLS	X	X			
4. DESIGN DETAILS	X	X	X		
1. SYSTEM OPERATING PROCEDURES	X	X			
2. SYSTEM LOGICAL FLOW	X	X	X		
3. INPUTS (EACH INPUT, THE BELOW)		X			
1. TITLE AND TAG		X			
2. FORMAT, ACCEPTABLE VALUE RANGE		X			
3. NUMBER OF ITEMS		X			
4. MEANS OF ENTRY		X			
5. EXPECTED VOLUME AND FREQUENCY		X			
6. PRIORITY		X			
7. SOURCES, SOURCE FORM, DISPOSITION		X			
8. SECURITY CLASSIFICATION		X			
9. REQUIREMENTS FOR TIMELINESS		X			
4. OUTPUTS (EACH OUTPUT, THE BELOW)		X			
1. TITLE AND TAG		X			
2. FORMAT		X			
3. NUMBER OF ITEMS		X			
4. PREPRINTED FORM REQUIREMENTS		X			

	FED	DOD	DA1	CPR	F&A
5. MEANS OF DISPLAY		x			
6. EXPECTED VOLUME AND FREQUENCY		x			
7. PRIORITY		x			
8. TIMING REQS, E.G., RESPONSE TIME		x			
9. ACCURACY REQURIEMENTS		x			
10. USER RECIPIENTS, USE OF DISPLAYS		x			
11. SECURITY CLASSIFICATION		x			
5. DATA ENVIRONMENT(EACH FILE,TABLE,.)		x			
1. TITLE AND TAG		x			
2. DESCRIPTION OF CONTENT		x			
3. NUMBER OF RECORDS OR ENTRIES		x			
4. STORAGE: TYPE,AMOUNT,ADDRESSES		x			
5. CLASSIFICATION					
6. DATA RETENTION		x			

	FED	DOD	DA1	CPR	F&A
4. PROGRAM SPECIFICATION	X	X	X		
1. GENERAL INFORMATION	X	X			
1. PURPOSE		X			
2. ENVIRONMENT-ORGANIZATIONAL	X				
3. PROJECT REFERENCES	X	X			
1. PROJECT REQUEST (AUTHORIZATION)	X				
2. OTHER PERTINENT DOCUMENTATION	X	X			
3. FIPS PUBS, OTHER REF DOCUMENTS	X				
4. FUNCTIONAL DESCRIPTION		X			
5. ASSOCIATED SYSTEM/SUBSYSTEM SPEC		X			
6. RELATED PROGRAM SPECS	X	X	X		
4. TERMS AND ABBREVIATIONS		X			
5. SUMMARY	X				
2. SUMMARY OF REQUIREMENTS	X	X	X		
1. PROGRAM DESCRIPTION	X	X			
2. PROGRAM FUNCTIONS	X	X	X		
3. PERFORMANCE	X				
1. ACCURACY AND VALIDITY	X	X			
1. MATHEMATICAL	X	X			
2. LOGICAL	X	X			
3. LEGAL	X	X			
4. TRANSMISSION	X	X			
2. TIMING	X	X			
1. THROUGHPUT TIME	X	X			
2. RESPONSE TIME TO QUERIES AND TO UPDATES OF DATA FILES	X	X			
3. MAJOR FUNCTION RESPONSE TIME	X	X			
4. FUNCTIONS SEQUENTIAL RELATIONS		X			
5. INPUT/OPERATIONS PRIORITIES		X			
6. TIMING REQS FOR THE RANGE OF TRAFFIC LOAD		X			
7. DATA TRANSFER/TRANSMIT TIME	X	X			
8. INTERLEAVING REQUIREMENTS		X			
9. INTERNAL PROCESSING TIME		X			
3. FLEXIBILITY	X	X			
1. PRIORITIES IMPOSED BY TYPES OF INPUTS AND CHANGES IN MODES OF OPERATION	X	X			
2. OPERATING ENVIRONMENT	X	X			
3. INTERFACES WITH OTHER SOFTWARE	X	X			
4. ACCURACY/VALIDATION TIMING	X	X			
5. PLANNED CHANGES, IMPROVEMENTS	X	X			
3. OPERATING ENVIRONMENT	X	X			
1. EQUIPMENT	X				
1. PROCESSOR, INTERNAL STORAGE	X				
2. STORAGE, MEDIA, FORM, DEVICES	X				
3. INPUT/OUTPUT DEVICES, CAPACITIES	X				

	FED	DOD	DAI	CPR	F&A
4. DATA TRANSMISSION DEVICES	X				
2. SUPPORT SOFTWARE	X	X			
1. SUPPORT SOFTWARE	X	X			
2. TEST SOFTWARE	X	X			
3. INTERFACES		X			
1. TYPE OF INTERFACE		X			
2. OPERATIONAL IMPLICATIONS		X			
3. DATA TRANSFER REQUIREMENTS		X			
4. CURRENT FORMATS, TRANSFERRED DATA		X			
5. INTERFACE PROCEDURES		X			
6. INTERFACE EQUIPMENT		X			
7. DATA CONVERSION REQUIREMENTS		X			
4. STORAGE	X	X			
1. INTERNAL STORAGE		X			
2. DRUM STORAGE		X			
3. DISK STORAGE		X			
4. TAPE STORAGE		X			
5. SECURITY AND PRIVACY	X	X			
6. CONTROLS	X	X			
4. DESIGN DETAILS	X	X			
1. PROGRAM OPERATING PROCEDURES	X	X			
2. INPUTS (EACH INPUT, THE BELOW)	X	X	X		
1. TITLE AND TAG	X	X	X		
2. FORMAT, ACCEPTABLE VALUE RANGE	X	X			
3. NUMBER OF ITEMS		X			
4. DESCRIPTION OF EACH ITEM		X	X		
5. MEANS OF ENTRY, MEDIA	X	X	X		
6. LENGTH OF INPUT		X			
7. EXPECTED VOLUME AND FREQUENCY	X	X	X		
8. PRIORITY		X	X		
9. SOURCES, SOURCE FORM DISPOSITION	X	X	X		
10. SECURITY CLASSIFICATION	X	X	X		
11. FLEXIBILITY		X			
12. REQS FOR TIMELINESS		X	X		
13. THROUGHPUT TIME		X			
14. SPECIAL HANDLING		X			
15. VALIDATION CRITERIA	X				
16. DATE PREPARED			X		
17. FLOW AND DESTINATION			X		
18. USER PREPARATION PROCEDURES			X		
19. BASIS FOR REQUIREMENT			X		
20. PROCESSING SEQUENCE			X		
21. CONTROLS			X		
22. INPUT TO			X		
3. OUTPUTS (EACH OUTPUT, THE BELOW)	X	X	X		
1. TITLE AND TAG	X	X	X		
2. FORMAT	X	X			
3. NUMBER OF ITEMS		X	X		

	FED	DOD	DA1	CPR	F&A
4. DESCRIPTION OF EACH ITEM	X	X	X		
5. DATA SELECTION CRITERIA	X	X			
6. DESCRIPTION OF PLOTS, GRAPHICS	X	X			
7. PREPRINTED FORM REQUIREMENTS		X			
8. MEANS OF DISPLAY	X	X	X		
9. LENGTH OF OUTPUT		X	X		
10. EXPECTED VOLUME AND FREQUENCY	X	X	X		
11. PRIORITY		X			
12. TIMING REQS, E.G., RESPONSE TIME		X	X		
13. USER RECIPIENTS, USE OF DISPLAYS	X	X	X		
14. DISPOSITION	X	X	X		
15. SECURITY CLASSIFICATION	X	X	X		
16. EXPLANATION OF SYMBOLS		X			
17. CONDITIONAL, STATUS INDICATORS		X			
18. SEQUENCE OF DISPLAYS		X			
19. DATE PREPARED			X		
20. OUTPUT EVENT			X		
21. RCS NUMBER			X		
22. NO. CHARS. PER DISPLAY UNIT			X		
23. DISPLAY UNIT DESCRIPTION			X		
24. NUMBER OF COPIES			X		
25. SELECTION/SUMMARIZATION OPTIONS			X		
26. OTHER EQUIPMENT			X		
27. OUTPUT CONTROL/CHECKS			X		
4. DATA ENVIRONMENT (EACH FILE, TABLE)	X	X			
1. TITLE AND TAG		X			
2. DESCRIPTION OF CONTENT		X			
3. PARAMETERS - START AND END OF FILE		X			
4. NUMBER OF RECORDS OR ENTRIES		X			
5. RECORD PARAMETERS - START AND END		X			
6. RELATIONSHIP OF EACH RECORD TO THE COMMON DATA BASE		X			
7. STORAGE - TYPE, AMOUNT, ADDRESS		X			
8. NORMAL AND OTHER FILE ORDERS		X			
9. CLASSIFICATION		X			
5. STORAGE ALLOCATION		X			
1. STORAGE MEDIA		X			
2. AVAILABLE STORAGE ON EACH MEDIUM		X			
3. ADDRESSES OF AVAILABLE STORAGE		X			
4. ERASABLE WORKING STORAGE		X			
6. DATA RETENTION		X			
1. HISTORIC RETENTION		X			
2. PERIODIC REPORT DATA		X			
3. SUMMARY REPORT DATA		X			
7. PROGRAM RELATIONSHIPS		X			
8. PROGRAM LOGIC	X	X			
1. FLOWCHARTS	X	X			
2. DECISION LOGIC TABLES	X				

	F E	D O	D A	C P	F &
	-	-	-	-	-
5. DATA BASE SPECIFICATION	X	X	X		
1. GENERAL INFORMATION	X	X			
1. PURPOSE OF DATA BASE SPEC		X			
2. ENVIRONMENT - ORGANIZATIONAL	X				
3. PROJECT REFERENCES	X	X			
1. PROJECT REQUEST (AUTHORIZATION)	X				
2. PREVIOUSLY PUBLISHED DOCUMENTS	X				
1. FUNCTIONAL DESCRIPTION		X			
2. DATA REQUIREMENTS DOCUMENT		X			
3. SYSTEM/SUBSYSTEM SPEC		X			
4. PROGRAM SPECIFICATIONS		X			
3. DOCUMENTATION OF RELATED PROJECTS	X				
4. FIPS PUBS, OTHER REF DOCUMENTS	X				
4. TERMS AND ABBREVIATIONS		X	X		
5. SUMMARY	X				
2. IDENTIFICATION AND DESCRIPTION	X	X	X		
1. IDENTIFICATION	X	X	X		
1. SYSTEM USING THE DATA BASE		X			
2. EFFECTIVES DATES		X			
3. STORAGE REQS		X			
4. PHYS DESCR OF DATA BASE FILES		X	X		
2. LABELING/TAGGING CONVENTIONS	X	X	X		
3. ORGANIZATION OF THE DATA BASE		X	X		
1. GENERAL FILE DESIGN AND FORMAT		X			
2. RATIONALE OF THE DESIGN		X			
3. ILLUSTRATIVE EXAMPLES		X			
4. SPECIAL INSTRUCTIONS	X	X			
1. CRITERIA FOR ENTERING DATA	X	X			
2. ENTRY RULES AND PROCEDURES	X	X			
3. DATA CONTROL UNIT ID		X			
4. FORMATS FOR DATA DESCRIPTION		X			
5. MACHINE RUN INSTRUCTIONS		X			
5. SUPPORT SOFTWARE	X	X			
1. DATA BASE MANAGEMENT SYSTEMS	X	X			
2. STORAGE ALLOCATION SOFTWARE	X	X			
3. DATA BASE LOADING SOFTWARE PROGS	X	X			
4. FILE PROCESSING PROGRAMS	X	X			
5. OTHER GENERATING, MODIFYING, OR UPDATING SOFTWARE	X	X			
6. SECURITY AND PRIVACY		X	X		
1. CLASSIFIED COMPONENTS		X	X		
2. PRIVACY RESTRICTIONS		X			
7. DATE PREPARED			X		
8. NORMAL ACCESS KEY			X		
9. NO. CHARACTERS PER RECORD			X		
10. NO. RECORDS PER DATA BASE					
11. PURGE/GROWTH RATES			X		

	FED1	DOD-	DA1-	CPR-	F&A-
12. FREQUENCY OF USE			X		
13. EXISTING MEDIA			X		
14. RETENTION PERIOD AND BACKUP			X		
15. HEADER AND TRAILER LABELS			X		
16. BLOCKING FACTORS			X		
3. DATA DEFINITIONS	X	X			
1. DATA FILES (EACH FILE, THE BELOW)	X	X			
1. FILE TAG OR LABEL	X	X			
2. NAME (IN FULL)	X	X			
3. FILE PURPOSE, LOGICAL CRITERIA	X	X			
4. LARGEST PROGRAM ENTITY USING FILE	X	X			
5. PRIMARY, SECONDARY STORAGE MEDIA	X	X			
6. FILE CONTENTS AND FORMAT	X	X			
7. THE FORM OF THE CONTENTS	X	X			
8. FILE CHANGE OR UPDATE CONDITIONS	X	X			
9. FILE CHANGE OR UPDATE METHOD	X	X			
10. USE RESTRICTIONS AND LIMITATIONS	X	X			
11. FILE CONTROL INFORMATION USED	X	X			
12. FILE STRUCTURE GRAPHICS	X	X			
13. USING SOFTWARE	X				
14. SECURITY AND PRIVACY	X				
15. INTEGRITY AND VALIDITY	X				
2. TABLES (EACH TABLE, THE BELOW)		X			
1. TABLE TAG OR LABEL		X			
2. FULL NAME OR PURPOSE OF TABLE		X			
3. DATA FILE CONTAINING THE TABLE		X			
4. PROGRAM SUBSYSTEM THAT USES TABLE		X			
5. LOGICAL DIVISIONS WITHIN TABLE		X			
6. BASIC TABLE STRUCT (FIXED/VARIES)		X			
3. ITEMS		X	X		
1. TAG OR LABEL		X	X		
2. PURPOSE OF THE ITEM		X			
3. TABLE IN WHICH IT IS FOUND		X			
4. TABLE TYPE IN WHICH IT IS FOUND		X			
5. POSITION IN TABLE		X	X		
6. ITEM USE		X			
7. ITEM TYPE		X			
8. ITEM CODING		X	X		
1. SYMBOLIC - CHARACTER CODE		X	X		
2. INTEGER - BINARY OR BCD		X			
3. FRACTION - SCALING FACTOR		X			
4. MIXED NUMBER		X			
5. STATUS - VALUES, CONDITIONS		X			
9. ACCESSIBILITY FACTOR		X			
10. DESCRIPTION			X		
11. SIGNIFICANCE			X		
12. FIELD LENGTH			X		

	FED	DOD	DA1	CPR	F&A
13. LEGAL RANGE OF VALUES			X		
14. REQUIRED/OPTIONAL			X		
15. ERROR PROCEDURE			X		
16. REMARKS			X		
4. RECORDS AND ENTRIES		X			
1. FULL NAME AND PURPOSE		X			
2. AN EXPLANATION OF EACH ITEM		X			
3. MAXIMUM SIZE		X			
4. GRAPHIC REPRESENTATION		X			
4. INTEGRATED DATA BASE		X			
1. DISCUSSION OF IMPACTS OF INTEGRATED DATA BASE		X			
2. RECOMMENDATIONS CONCERNING CHANGES IN EXISTING SUPPORT SOFTWARE		X			
5. PHYSICAL CHARACTERISTICS	X				
1. STORAGE	X				
1. INTERNAL	X				
2. DEVICE	X				
3. OFFLINE	X				
2. ACCESS	X				
3. DESIGN CONSIDERATIONS	X				

	FED	DOD	DA1	CPR	F&A
6. FUNCTIONAL USER MANUAL	X	X	X		
1. GENERAL INFORMATION	X	X	X		
1. PURPOSE		X			
2. ENVIRONMENT	X				
1. USER ORGANIZATION	X				
2. COMPUTER CENTER	X				
3. PROJECT REFERENCES	X	X	X		
1. PROJECT REQUEST (AUTHORIZATION)	X	X			
2. PREVIOUSLY PUBLISHED DOCUMENTATION ON THE PROJECT	X	X			
3. DOCUMENTATION CONCERNING RELATED PROJECTS AND SOFTWARE	X	X			
4. FIPS PUBS, OTHER REF DOCS	X	X			
4. TERMS AND ABBREVIATIONS		X			
5. SECURITY AND PRIVACY		X			
1. CLASSIFIED COMPONENTS		X			
1. INPUTS		X			
2. OUTPUTS		X			
3. DATA BASES		X			
4. COMPUTER PROGRAMS		X			
2. PRIVACY RESTRICTIONS		X			
5. SUMMARY	X				
2. SYSTEM SUMMARY/APPLICATION	X	X	X		
1. APPLICATION DESCRIPTION	X	X	X		
1. PURPOSE OF THE SOFTWARE	X	X			
2. CAPABILITIES AND OPERATING IMPROVEMENTS PROVIDED	X	X			
3. ADDITIONAL FEATURES, CHARACTERISTICS AND ADVANTAGES OF THE SYS		X			
4. FUNCTIONS PERFORMED	X	X			
2. OPERATION	X	X			
1. OPERATING RELATIONSHIPS, I/O	X	X			
2. SECURITY/PRIVACY CONSIDERATIONS	X				
3. GENERAL CHARTS, I/O DESCRIPTION	X	X			
3. EQUIPMENT DESCRIPTION	X	X	X		
4. SOFTWARE STRUCTURE DESCRIPTION	X	X			
5. PERFORMANCE DESCRIPTION	X	X			
1. INPUT - TYPES, VOLUMES, RATE	X	X			
2. OUTPUT - TYPES, VOLUME, ACCURACY, RATE	X	X			
3. RESPONSE TIME	X	X			
4. LIMITATIONS - I/O, FILES, LANG	X	X			
5. ERROR-RATE, DETECTION, CORRECTION	X	X			
6. PROCESSING TIME	X	X			
7. FLEXIBILITY - EXTENSIBILITY	X	X			
8. RELIABILITY	X	X			
6. DATA BASE FILES DESCRIPTION	X	X			

	FED	DOD	DA1	CPR	F&A
7. INPUTS, PROCESSING, AND OUTPUTS	X	X	X		
1. INPUTS DESCRIPTION	X	X			
1. PURPOSE OF INPUT		X			
2. CONTENT OF INPUT		X			
3. ASSOCIATED INPUTS		X			
4. ORIGIN/SOURCE/PREPARER		X			
5. DATA FILES		X			
6. OTHER - REMARKS, GENERAL INFO		X			
2. PROCESSING - I/O RELATIONS, FLOW	X	X	X		
3. OUTPUTS DESCRIPTION	X	X	X		
1. OUTPUT		X			
2. PURPOSE OF OUTPUT		X			
3. CONTENT OF OUTPUT		X			
4. ASSOCIATED OUTPUTS		X			
5. DISTRIBUTION OF OUTPUTS		X			
6. OTHER - GENERAL INFORMATION		X			
8. GLOSSARY OF STANDARD DATA AND CODES			X		
3. PROCEDURES AND REQUIREMENTS	X	X	X		
1. INIATION PROCEDURES DESCRIPTION	X	X			
2. STAFF INPUT REQUIREMENTS	X	X	X		
1. CONSIDERATIONS	X	X			
1. CONDITIONS - INPUT CAUSE	X	X			
2. FREQUENCY	X	X			
3. ORIGIN - ORGANIZATION	X	X			
4. MEDIUM - INPUT DEVICE	X	X			
5. RESTRICTIONS-PRIORITY/SECURITY	X				
6. QUALITY CONTROL	X				
7. DISPOSITION	X				
8. ASSOCIATED INPUTS		X			
9. OTHER - INFO		X			
2. INPUT FORMATS	X	X	X		
1. LENGTH - CHARACTERS/LINE, ITEM	X	X			
2. FORMAT - E.G., LEFT JUSTIFIED	X	X			
3. LABELS - E.G., TAGS OR ID'S	X	X			
4. SEQUENCE	X	X			
5. PUNCTUATION	X	X			
6. COMBINATION	X	X			
7. VOCABULARY	X	X			
8. OMISSIONS AND REPEATS	X				
9. CONTROLS - HEADER/TRAILER	X				
3. SAMPLE INPUTS	X	X			
1. CONTROL OR HEADER	X	X			
2. TEXT	X	X			
3. TRAILER - E.G., CONTROL DATA	X	X			
4. OMISSIONS	X	X			
5. REPEATS	X	X			
3. OUTPUT REQUIREMENTS DESCRIPTION	X	X	X		

	FED	DOD	DA1	CPR	F&A
1. CONSIDERATIONS	X	X			
1. USE - BY WHOM AND FOR WHAT	X	X			
2. FREQUENCY	X	X			
3. VARIATIONS	X	X			
4. DESTINATION	X	X			
5. MEDIUM	X	X			
6. QUALITY CONTROL	X				
7. DISPOSITION	X				
8. OTHER - INFO		X			
2. OUTPUT FORMATS	X	X	X		
1. HEADER	X	X			
2. BODY	X	X			
3. TRAILER	X	X			
3. SAMPLE OUTPUTS	X	X	X		
1. DEFINITION	X	X			
2. SOURCE	X	X			
3. CHARACTERISTICS	X	X			
4. OUTPUT VOCABULARY DESCRIPTION		X	X		
5. UTILIZATION OF SYSTEM OUTPUTS		X			
6. ERROR AND RECOVERY	X	X			
4. CONTROL METHODS, AUDIT TRAILS			X		
5. DETAIL CLERICAL PROCEDURES			X		
6. DESIGN NOTES			X		
4. FILE QUERY PROCEDURES	X	X			
1. SYSTEM QUERY CAPABILITIES	X	X			
2. DATA BASE FORMAT	X	X			
3. QUERY PREPARATION	X	X			
4. CONTROL INSTRUCTIONS	X	X			

	FED	DOD	DA1	CPR	F&A
7. OPERATIONS MANUAL (RUN BOOK)	X	X	X		
1. GENERAL INFORMATION	X	X	X		
1. PURPOSE		X			
2. ENVIRONMENTS	X				
1. SOFTWARE SPONSOR	X				
2. DEVELOPER	X				
3. USER ORGANIZATION	X				
4. COMPUTER CENTER	X				
3. PROJECT REFERENCES	X	X			
1. PROJECT REQUEST (AUTHORIZATION)	X				
2. PREVIOUSLY PUBLISHED DOCUMENTS	X				
3. DOCUMENTATION OF RELATED PROJECTS	X	X			
4. FIPS PUBS. OTHER REF DOCUMENTS		X			
4. TERMS AND ABBREVIATIONS		X	X		
5. SUMMARY - SOFTWARE FUNCTIONS	X				
2. SYSTEM OVERVIEW	X	X	X		
1. SYSTEM APPLICATION		X			
2. SOFTWARE ORGANIZATION (DIAGRAM)	X	X			
1. INPUTS	X				
2. OUTPUTS	X				
3. DATA FILES	X		X		
4. OPERATIONS SEQUENCE	X				
5. RUN GROUPS	X				
3. PROGRAM INVENTORY	X	X	X		
1. TITLE	X	X			
2. NUMBER	X				
3. IDENTIFIER	X	X			
4. CLASSIFICATION		X			
5. LISTINGS			X		
4. FILE INVENTORY	X	X			
1. TITLE	X	X			
2. IDENTIFIER	X	X			
3. STORAGE MEDIUM	X	X			
4. REQUIRED STORAGE	X	X			
5. PROCESSING OVERVIEW		X			
1. INTERFACES WITH OTHER SYSTEMS		X			
2. SECURITY AND PRIVACY REQS		X			
3. OTHER PERTINENT SYSTEM RELATED INFORMATION		X			
6. SECURITY AND PRIVACY		X			
1. CLASSIFIED COMPONENTS		X			
1. INPUTS		X			
2. OUTPUTS		X			
3. DATA BASES		X			
4. COMPUTER PROGRAMS		X			
2. PRIVACY RESTRICTIONS		X			
3. DESCRIPTION OF RUNS	X	X	X		

	FED	DOD	DA1	CPR	F&A
1. RUN INVENTORY	X	X			
2. RUN PROGRESSION/PHASING/DIAGRAMS	X	X	X		
3. RUN DESCRIPTION (IDENTIFY)(EACH RUN)	X	X	X		
1. CONTROL INPUTS	X	X			
2. OPERATING INFORMATION	X	X	X		
1. RUN IDENTIFICATION	X	X			
2. OPERATING/PERIPHERAL REQS	X	X			
3. SECURITY CLASSIFICATION		X			
4. INITIATION METHOD	X	X			
5. ESTIMATED RUN TIME AND TURN-AROUND TIME	X	X	X		
6. OPERATOR COMMANDS/MESSAGES	X		X		
7. OPERATIONAL STDS WAIVERS		X			
8. CONTACTS FOR RUN PROBLEMS	X	X			
3. INPUT/OUTPUT FILES.	X	X	X		
1. FILE NAME OR LABEL	X	X			
2. SECURITY CLASSIFICATION		X			
3. RECORDING MEDIUM	X	X			
4. RETENTION SCHEDULE	X	X			
5. DISPOSITION OF FILE	X	X			
6. INPUT DEVICE DOCUMENT			X		
4. OUTPUT REPORTS	X	X	X		
1. REPORT IDENTIFICATION	X	X			
2. SECURITY CLASSIFICATION		X			
3. MEDIUM (I.E., HARDCOPY, TAPE)	X	X			
4. VOLUME OF REPORT	X	X			
5. NUMBER OF COPIES	X	X			
6. DISTRIBUTION OF COPIES	X	X			
7. LAYOUTS AND SAMPLES			X		
5. REPRODUCED OUTPUT REPORTS	X	X			
1. REPORT IDENTIFICATION	X	X			
2. REPRODUCTION TECHNIQUE	X	X			
3. DIMENSIONS OF PAPER OR OTHER MEDIUM	X	X			
4. BINDING METHOD	X	X			
5. NUMBER OF COPIES		X			
6. DISTRIBUTION OF COPIES	X	X			
6. RESTART/RECOVERY PROCEDURES	X	X			
4. NON-ROUTINE PROCEDURES	X				
1. SWITCHOVER TO A BACK-UP SYSTEM	X				
2. PROCS FOR TURNOVER TO MAINTAINERS	X				
5. REMOTE TERMINAL OPERATIONS	X				

	FED	DOD	DA1	CPR	F&A
8. PROGRAM MAINTENANCE MANUAL	X	X	X		
1. GENERAL INFORMATION	X	X			
1. PURPOSE		X			
2. ENVIRONMENT	X				
1. PROJECT SPONSOR	X				
2. DEVELOPER	X				
3. USER	X				
4. COMPUTER CENTER/NETWORK	X				
3. PROJECT REFERENCES	X	X			
1. PROJECT REQUEST (AUTHORIZATION)	X				
2. PREVIOUSLY PUBLISHED DOCUMENTS	X				
3. DOCUMENTATION OF RELATED PROJECTS	X	X			
4. FIPS PUBS AND OTHER REF DOCUMENTS	X				
4. TERMS AND ABBREVIATIONS		X	X		
5. SUMMARY	X				
2. SYSTEM DESCRIPTION/PROGRAMS DESCRIPTION	X	X	X		
1. SYSTEM APPLICATION		X			
1. SYSTEM PURPOSE		X			
2. SYSTEM FUNCTIONS		X			
3. SYSTEM FLOWCHART			X		
4. EQUIP AND SOFTWARE REQS			X		
2. SECURITY AND PRIVACY		X			
1. CLASSIFIED COMPONENTS		X			
1. INPUTS		X			
2. OUTPUTS		X			
3. DATA BASES		X			
4. COMPUTER PROGRAMS		X			
2. PRIVACY RESTRICTIONS		X			
3. GENERAL DESCRIPTION (BY FUNCTION)	X	X			
1. SYSTEM		X			
2. SUBSYSTEM		X			
3. JOB		X			
4. PROGRAM DESCRIPTION	X	X	X		
1. IDENTIFICATION - TITLE, VERSION	X	X			
2. PROGRAM FUNCTIONS, SOLUTION METHOD	X	X	X		
3. INPUT-DESCRIPTION		X	X		
1. DATA RECORDS USED		X	X		
2. INPUT DATA TYPE AND LOCATIONS		X			
3. ENTRY REQUIREMENTS		X			
4. PROCESSING - INCLUDING:	X	X	X		
1. PROCESSING LOGIC	X	X	X		
1. MACRO-LOGIC CHART			X		
2. PROGRAM LOGIC DETAILS			X		
3. DECISION TABLES			X		
2. LINKAGES	X	X			
3. VARIABLES AND CONSTANTS	X				
4. ERROR HANDLING PROVISIONS	X				

	FED	DOD	DA1	CPR	F&A
5. FORMULAS	X				
6. RESTRICTIONS/LIMITATIONS	X	X			
7. LOCATIONS, SETTINGS, INTERNAL SWITCHES AND FLAGS	X				
8. STORAGE, SHARED STORAGE	X	X			
9. MAJOR BRANCHING CONDITIONS		X	X		
10. EXIT REQUIREMENTS		X			
11. OUTPUT DATA TYPE, LOCATIONS		X			
5. OUTPUT - DESCRIPTION, LAYOUT	X	X	X		
6. INTERFACES	X	X			
7. TABLES	X	X			
1. TABLE TAG, LABEL OR SYMBOLIC NAME, LOCATION		X			
2. FULL NAME AND PURPOSE		X			
3. OTHER PROGRAMS USING TABLE		X			
4. LOGICAL DIVISIONS		X			
5. BASIC TABLE STRUCTURE		X			
6. TABLE LAYOUT (GRAPHIC)		X			
7. ITEMS		X			
1. ITEM TAG, LABEL, NAME		X			
2. PURPOSE OF THE ITEM		X			
3. ITEM CODING		X			
8. UNIQUE RUN FEATURES		X			
1. PROGRAM RUN DIAGRAM			X		
2. TIMING CRITERIA			X		
3. OPERATING INSTRUCTIONS			X		
3. OPERATING ENVIRONMENT	X	X			
1. HARDWARE	X	X			
1. PROCESSOR, INTERNAL STORAGE SIZE	X				
2. STORAGE ONLINE OR OFFLINE, MEDIA, FORM, AND DEVICES	X				
3. INPUT/OUTPUT DEVICES, ONLINE AND OFFLINE	X				
4. DATA TRANSMISSION DEVICES	X				
2. SUPPORT SOFTWARE IDENTIFICATION	X	X			
1. OPERATING SYSTEM DESCRIPTION	X				
2. COMPILER/ASSEMBLER DESCRIPTION	X				
3. OTHER SOFTWARE DESCRIPTION	X				
3. DATA BASE DESCRIPTION	X	X	X		
1. GENERAL CHARACTERISTICS		X			
1. IDENTIFICATION		X			
2. PERMANENCY		X			
3. STORAGE		X			
4. RESTRICTIONS		X			
2. ORGANIZATION, DETAILED DESCRIPT		X	X		
1. LAYOUT - DATA BASE STRUCTURE		X	X		
2. SECTIONS - RECORD PARTS		X			

	FED	DOD	DA1	CPR	F&A
3. FIELDS IDENTIFICATION		X			
1. TAGS/LABELS		X			
2. SIZE		X			
3. RANGE		X			
4. EXPANSION - NOTE PROVISIONS		X			
4. MAINTENANCE PROCEDURES	X	X			
1. PROGRAMMING CONVENTIONS	X	X			
1. DESIGN OF MNEMONIC IDENTIFIERS		X			
2. PROCEDURES AND STANDARDS FOR FLOWCHARTS, LISTINGS, SERIALIZATION OF CARDS, ABBREVIATIONS, REMARKS, AND SYMBLOS		X			
3. STANDARDS CITATIONS		X			
4. STANDARD DATA ELEMENTS		X			
2. VERIFICATION PROCEDURES, I/O DATA	X	X	X		
3. ERROR CONDITIONS	X	X			
4. SPECIAL MAINTENANCE PROCEDURES TO:	X	X			
1. MAINTAIN THE SYSTEM I/O COMPONENTS, SUCH AS THE DATA BASE		X			
2. PERFORM LIBRARY MAINTENANCE RUN		X			
5. SPECIAL MAINTENANCE PROGRAMS		X			
1. INPUT-OUTPUT REQUIREMENTS		X			
2. PROCEDURES - SETTING UP, RUNNING, AND TERMINATING		X			
6. LISTINGS AND FLOWCHARTS	X	X	X		
7. PROGRAM COMPILATION OUTPUT			X		
8. TEST TIMING RESULTS			X		
9. MISCELLANEOUS INFORMATION			X		

	FED	DOD	DA1	CPR	F&A
9. TEST PLAN	X	X			
1. GENERAL INFORMATION	X	X			
1. PURPOSE		X			
2. ENVIRONMENT, PRETEST BACKGROUND	X	X			
3. REFERENCES	X	X			
1. PROJECT REQUEST (AUTHORIZATION)	X				
2. PREVIOUS DOCUMENTS ON PROJECT	X	X			
3. DOCUMENTATION OF RELATED PROJECTS	X	X			
4. FIPS PUBS, OTHER REF DOCS	X				
4. TERMS AND ABBREVIATIONS		X			
5. SUMMARY	X				
2. DEVELOPMENT TEST ACTIVITY		X			
1. PRE-TEST ACTIVITIES		X			
2. PRE-TEST ACTIVITIES RESULTS		X			
3. TEST PLAN	X	X			
1. SYSTEM/SOFTWARE DESCRIPTION	X	X			
2. MILESTONES - TESTING SCHEDULE	X	X			
3. TESTING (IDENTIFY 1ST LOCATION)	X	X			
1. SCHEDULE	X	X			
1. OVERALL ONSITE TEST PERIOD		X			
2. PRETEST ONSITE TEST PERIOD		X			
3. DATA COLLECTION PERIOD		X			
4. USER ORIENTATION PERIOD		X			
5. USER/OPERATOR/MAINTAINER TNG		X			
6. TEST REPORT PREP, REVIEW		X			
2. RESOURCE REQUIREMENTS	X	X			
1. EQUIPMENT	X	X			
2. SOFTWARE	X	X			
3. PERSONNEL	X	X			
3. ORIENTATION PLAN		X			
4. TESTING MATERIALS	X	X			
1. DOCUMENTATION	X	X			
2. SOFTWARE AND ITS MEDIUM	X	X			
3. TEST INPUTS, SAMPLE OUTPUTS	X	X			
4. TEST CONTROL SOFTWARE, WRKSHT	X	X			
5. CARD DECKS/TAPES		X			
6. SITE SUPPLIED MATERIALS		X			
5. TEST TRAINING	X				
6. SECURITY		X			
4. TESTING (IDENTIFY 2ND LOCATION) ETC.	X	X			
4. TEST SPECIFICATIONS AND EVALUATION	X	X			
1. SPECIFICATIONS	X	X			
1. REQUIREMENTS	X	X			
2. SYSTEM/SOFTWARE FUNCTIONS	X	X			
3. TEST/FUNCTION RELATIONSHIPS	X	X			
4. TEST PROGRESSION	X				
2. METHODS AND CONSTRAINTS	X	X			
1. METHODOLOGY	X				

	FED	DOD	DA1	CPR	F&A
2. CONDITIONS	X	X			
3. EXTENT	X	X			
4. DATA RECORDING	X	X			
5. CONSTRAINTS	X	X			
3. TEST PROGRESSION		X			
4. EVALUATION	X	X			
1. CRITERIA	X	X			
1. TOLERANCES		X			
2. SAMPLES		X			
3. COUNTS		X			
2. DATA REDUCTION	X	X			
1. MANUAL		X			
2. SEMI-AUTOMATIC		X			
3. AUTOMATIC		X			
5. TEST DESCRIPTIONS (EACH TEST, AS BELOW)	X	X			
1. DESCRIPTION	X	X			
2. CONTROL	X	X			
1. MEANS OF CONTROL	X	X			
1. MANUAL	X	X			
2. SEMI-AUTOMATIC	X	X			
3. AUTOMATIC	X	X			
2. DATA	X	X			
1. INPUT DATA	X	X			
2. INPUT COMMANDS	X	X			
3. OUTPUT DATA	X	X			
4. OUTPUT NOTIFICATION	X	X			
3. PROCEDURES	X	X			
1. SETUP		X			
2. INITIALIZATION		X			
1. READOUT OF CONTROL FUNCTION LOCATIONS, CRITICAL DATA		X			
2. QUEUEING OF DATA INPUT		X			
3. QUEUEING OF SUPPORT PROGRAMS		X			
4. COORDINATION OF PERSONNEL ACTIONS		X			
3. STEPS		X			
1. VISUAL INSPECTION, TEST CONDITIONS		X			
2. DATA DUMPS		X			
3. INSTRUCTIONS FOR DATA RECORDING		X			
4. MODIFICATIONS OF DATA BASE		X			
5. INTERIM EVAL OF TEST RESULTS		X			
4. TERMINATION		X			
1. READOUT OF CRITICAL DATA		X			
2. TERMINATION OF TIME-SENSITIVE TEST SUPPORT PROGRAMS, APPARATUS	X				
3. COLLECTION OF TEST RESULTS RECORDS		X			

	FED	DOD	DA1	CPR	F&A
10. TEST ANALYSIS REPORT	X	X	X		
1. GENERAL INFORMATION	X	X			
1. PURPOSE		X			
2. ENVIRONMENT - ORGANIZATIONAL	X				
1. SOFTWARE SPONSOR	X				
2. DEVELOPER	X				
3. USER ORGANIZATION	X				
4. COMPUTER CENTER	X				
3. PROJECT REFERENCES	X	X			
1. PROJECT REQUEST (AUTHORIZATION)	X				
2. PREVIOUSLY PUBLISHED DOCUMENTS	X				
3. DOCUMENTATION ON RELATED PROJECTS	X				
4. FIPS PUBS, OTHER REF DOCUMENTS	X				
4. TERMS AND ABBREVIATIONS		X			
5. SUMMARY	X				
2. TEST RESULTS AND FINDINGS	X	X			
1. TEST (IDENTIFY) (FOR EACH TEST)	X	X			
1. DYNAMIC DATA PERFORMANCE	X	X			
2. STATIC DATA PERFORMANCE	X	X			
3. PARAMETER PERFORMANCE		X			
N. TEST (IDENTIFY)	X				
3. SOFTWARE FUNCTION FINDINGS	X				
1. FUNCTION (IDENTIFY) (FOR EACH FUNCT	X	X			
1. PERFORMANCE	X	X			
2. LIMITS	X				
N. FUNCTION (IDENTIFY)	X				
4. ANALYSIS SUMMARY	X	X			
1. CAPABILITIES	X	X			
2. DEFICIENCIES	X	X			
3. RECOMMENDATIONS, REFINEMENTS	X	X			
1. URGENCY FOR EACH CORRECTION	X				
2. PARTIES RESPONSIBLE	X				
3. HOW TO MAKE CORRECTIONS	X				

	FED	DOD	DA1	CPR	F&A
11. SYSTEMS DESCRIPTION MANUAL			X		
1. NARRATIVE SYSTEM DESCRIPTION			X		
2. DESIGN NOTES			X		
3. SYSTEM FLOW CHART			X		
4. EQUIP/SOFTWARE REQS			X		
5. SOURCE DOCUMENTS DESCRIPTION			X		
6. DETAILED CLERICAL PROCEDURES			X		
7. CONTROL METHODS/AUDIT TRAILS			X		
8. INPUT DEVICE INSTRUCTIONS			X		
9. GLOSSARY, STD DATA ELEMS			X		
10. PROGRAM LISTINGS			X		
11. PROGRAM DESCRIPTION			X		
12. PROGRAM RUN DIAGRAM			X		
13. INPUT DEVICE DOCUMENTS			X		
14. OUTPUT REPORT LAYOUTS			X		
15. OUTPUT FORM LAYOUTS			X		
16. FILE AND RECORD LAYOUTS			X		
17. DETAILED PROGRAM NARRATIVE			X		
18. PROCESSING MACRO-LOGIC CHART			X		
19. DECISION TABLES			X		
20. TIMING CRITERIA			X		
21. MISCELLANEOUS INFORMATION			X		
22. TEST DATA AND CRITERIA			X		
23. TEST OUTPUT RESULTS			X		
24. TEST TIMING RESULTS			X		

	FED	DOD	DA1	CPR	F&A
12. CONVERSION MANUAL (MANUAL TO MACHINE)				X	X
1. GENERAL INFORMATION				X	X
1. PURPOSE				X	X
2. SCOPE				X	X
1. TASKS TO BE INCLUDED				X	X
2. TASKS TO BE EXCLUDED				X	X
3. CONVERSION PROCESS OUTLINE				X	
2. CONVERSION PLAN				X	X
1. PRECONVERSION TASKS					X
2. CONVERSION SCHEDULE/NETWORK					X
3. CONVERSION TEAM COMPOSITION					X
4. COMPUTER PROGRAM INSTALLATION				X	
5. EQUIPMENT AND OTHER RESOURCE REQS					X
6. OPERATING PROCEDURES PUBLICATION				X	X
7. TRAINING MATERIALS, TRAINING				X	X
8. PHASE-OUT OF OLD SYSTEM (IF APPLICABLE), CONVERSION, AND PHASE-IN OF NEW SUBSYSTEM					X
9. CONTINGENCY PLAN				X	X
10. DISPLACED PERSONNEL SKILLS PHASE-OUT - RETRAINING					X
11. OPERATING PERSONNEL RECRUITMENT					X
12. SITE PLANNING AND PREPARATION					X
13. EQUIPMENT INSTALLATION AND CHECKOUT					X
14. READINESS REVIEW: CONVERSION, NEW SYSTEM, AND PRE-IMPLEMENTATION ACTIVITIES					X
15. OLD EQUPMENT PHASEOUT					X
3. DATA BASE CONVERSION PROCEDURES				X	X
1. DATA RECORD SOURCES, CAPTURING METHOD					X
2. WORK SHEETS, RECORD FORMS					X
3. DATA CONVERSION WORKLOAD ESTIMATE, BY SOURCE					X
4. MANUAL AND ADP CONTROL SYSTEM DESIGN FOR ASSURING THAT RECORDED DATA IS CONVERTED AND INCLUDED IN NEW RECORDS					X
5. DESCRIPTION OF METHODS FOR EDITING, AND RE-ENTERING THE DATA					X
6. SCHEDULES FOR EACH DATA COLLECTION TASK					X
7. REPORTING SCHEDULE FOR MAINTAINING THE STATUS OF ALL CONVERSION TASKS					X
8. TRAINING MATERIAL PREPARATION					X

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Lapp, Roger L
Automated Data Processing System (ADPS) : documentation standards. - Champaign, Ill. : Construction Engineering Research Laboratory ; Springfield, Va. : available from National Technical Information Service , 1978.
48p. ; 27 cm. (Special report. Construction Engineering Research Laboratory ; P-92)

1. Electronic data processing documentation
2. CAEADS. I. Title. II. Series: U.S. Construction Engineering Research Laboratory. Special report ; P-92.